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24 FEB 1999

1. Your reference JL2051

2. Patent application number
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124 FEB 1999

9904110.5

3. Full name, address and postcode of the or of each applicant (underline all surnames)

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Patents ADP number (if you know it)

7608839001

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention DISPLAY FRAME

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Barker Brettell

138 Hagley Road
Edgbaston
Birmingham
B16 9PW

Patents ADP number (if you know it)

7442494002

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7.	If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application		Number of earlier application	Date of filing (day/month/year)
8.	Is a statement of inventorship and of right to grant of a patent required in support of this request (Answer 'Yes' if: a) any applicant named in part 3 is not an inventor, or b) there is an inventor who is not named as an applicant, or c) any named applicant is a corporate body. See note (d))	NO		

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Description 6 + 6

Claim(s) -

Abstract -

Drawing(s) 3 + 3

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Priority documents -

Translations of priority documents -

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination -
(*Patents Form 9/77*)

Request for substantive examination -
(*Patents Form 10/77*)

Any other documents -
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11. I/We request the grant of a patent on the basis of this application.

Signature *Barker Brettell* Date
Barker Brettell 23/02/99

12. Name and daytime telephone number of person to contact in the United Kingdom JOHN LAWRENCE Tel: 0121 456 1364

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DISPLAY FRAME

This invention concerns improvements in or relating to display frames. The invention has particular, but not exclusive application to re-usable or multi-purpose display frames. More especially, the invention has application to display frames capable of being used as packaging for merchandise at a point of sale and which can subsequently be used after purchase and removal of the merchandise for another purpose, such as to display a picture or the like. In this way efficient use is made of the packaging for the merchandise.

Other features, benefits and advantages of the invention will be apparent from the following description.

According to one aspect of the invention there is provided a display frame comprising a bearer member formed with a rectangular aperture having a rebate opening to one side of the bearer member and providing a seating for locating a box-shaped enclosure having a transparent or translucent portion through which an article within the enclosure can be viewed.

By this invention, the display frame can be used to display merchandise contained within the enclosure at a point of sale and, on removal of the merchandise after purchase, the display frame can be adapted for re-use as a picture frame or the like by locating and retaining a picture in the rebated aperture.

For such application of the display frame, the enclosure may provide a backing panel for the picture with suitable retainers such as push or press fit clips being provided to secure the backing panel.

The display frame may be provided with a hook or similar device enabling the frame to be hung for display purposes at a point of sale and for subsequently mounting the frame when re-used as a picture frame or the like.

5

In a preferred embodiment, the box-shaped enclosure comprises a base wall and four side walls formed integrally in one piece from a blank of cardboard or similar material with a separate front wall formed by a sheet of transparent or translucent material such as glass or plastic. In this 10 embodiment, the sheet of transparent or translucent material is seated in the rebate and retained by securing the side walls of the enclosure in the rebate, for example by adhesively bonding the side walls to the bearer member. With this arrangement, the enclosure can be opened to remove merchandise contained therein by detaching the side walls of the enclosure from the 15 bearer member, and the base wall separated from the side walls to provide the backing panel for a picture located between the transparent or translucent sheet and the backing panel. In this way a substantial portion of the original display frame is re-used thereby reducing significantly the amount of waste or scrap to be disposed of from the original packaging for 20 the merchandise. Such re-use is an especially advantageous feature of the invention with the increasing cost of disposing of waste materials and the environmental problems created thereby.

According to another aspect of the invention there is provided a box-shaped 25 enclosure comprising a base wall and four side walls integrally formed from a blank wherein abutting side walls at each corner of the enclosure form a mitre joint.

By this feature of forming mitre joints at the corners of the enclosure a 30 particularly neat and attractive appearance can be achieved.

Advantageously, the blank is cut from a sheet of material such as stiff card or cardboard by cutting at right angles to the plane of the sheet and the corners removed by cutting at 45° to the plane of the sheet so that the 5 abutting edges of the side walls can form mitre joints at the corners of the enclosure. An adhesive may be applied to the abutting edges to bond the side walls to each other at the corners of the enclosure.

The enclosure may be formed using a computer numerical controlled (CNC) 10 cutting machine to obtain the blank from a sheet of stock material and subsequently removing the corners of the blank. The use of such CNC machine enables blanks to be formed with a high degree of accuracy avoiding waste and reducing manufacturing costs significantly.

15 The invention will now be described in more detail by way of example only with reference to the accompanying drawings, wherein:

Figure 1 is a side view, partly in section of a display frame embodying the invention;

20

Figure 2 is a plan view of a box-shaped enclosure with the separate top wall removed;

25

Figure 3 is a plan view showing the method of cutting a sheet of stock material to form a blank for producing the box-shaped enclosure shown in Figure 2;

Figure 4 is a plan view of the formed blank prior to folding to produce the box-shaped enclosure; and

30

Figure 5 is a side view, partly in section, showing the display frame of Figure 1 re-used as a picture frame.

Referring first to Figures 1 and 2, there is shown a display frame embodying
5 the invention comprising a bearer member 1 defining a rectangular aperture
2 in which a box-shaped enclosure 3 is located and retained.

The box-shaped enclosure 3 comprises a base wall 4 and four side walls 5,
6, 7, 8 found integrally in one piece from a blank of cardboard or similar
10 stiff material as described in more detail later. The enclosure 3 further
comprises a separate top wall 9 of clear plastics material although other
transparent or translucent materials including glass may be used.

The aperture 2 is formed with a rebate 10 extending around the periphery
15 which opens to the rear of the bearer member 1 and provides a seating 11
for the top wall 9.

The top wall 9 is located and retained in position by adhesively bonding the
side walls 5, 6, 7, 8 of the enclosure 3 within the rebate 10.

20 The enclosure 3 may contain merchandise which can be viewed through the
top wall 9 from the front of the display frame. A hook or tag 12 attached to
the rear of the bearer member 1 enables the display frame to be hung on a
suitable support (not shown) for display purposes. Alternatively or
25 additionally, a hook or tag 12 may be attached to the rear of the enclosure 3.

With reference now to Figure 5, the enclosure 3 may be opened after
purchase to remove the merchandise by cutting the side walls 5, 6, 7, 8
flush with the rear of the bearer member 1 so that the front wall 9 remains
30 held in place in the rebate 10.

The rebate 10 conceals the portion of the side walls 5, 6, 7, 8 remaining in place when viewed from the front of the bearer member 1 allowing a photograph or photograph mount 24 to be inserted behind the top panel 9 5 with the edges similarly concealed by the rebate 10.

The base wall 4 of the enclosure 3 can then be separated from the side walls 5, 6, 7, 8 to form a backing panel 25 which fits behind the photograph 24 and can be secured by press or push fit retainer clips 13 engaging the bearer 10 member 1. The frame can then be hung by the hook or tag 12 on a conventional picture hook.

In this embodiment, the bearer member 1 is made of wood, but other materials such as plastic may be used. The bearer member 1 may be of 15 rectangular shape or any other shape as desired, for example round or oval, having regard to the intended re-use as a picture frame. The bearer member 1 may also have any suitable pattern or decoration on the front as desired.

Referring now to Figures 3 and 4, there is shown a sheet 14 of cardboard 20 from which blanks for forming the enclosure 3 are formed using a CNC cutting machine programmed to cut the sheet 14 at right angles to the plane along lines 15, 16, 17, 18 to form a rectangular blank 19. In this way a large number of blanks 19 can be produced with a high degree of accuracy eliminating waste and improving efficiency. Each blank 19 is partially cut 25 at right angles to the plane thereof on one side to form four fold lines 20, 21, 22, 23 defining the base wall 4. The corners of the blank 19 are removed by cutting the blank 19 at 45° to the plane thereof on the other side to form the side walls 5, 6, 7, 8 connected to the base wall 4 along the fold lines 20, 21, 22, 23. The side walls 5, 6, 7, 8 are folded upwards from the 30 base wall 4 and the abutting mitre edges 5a, 6a, 7a, 8a form mitre joints at

the corners of the enclosure 3. The mitre joints provide a neat and attractive finish to the interior of the enclosure 3 which may be secured in the erected position by bonding the abutting edges of the side walls 5, 6, 7, 8 to each other with glue.

5

As will now be appreciated, the present invention provides a display frame of simple construction suitable for point of sale display of merchandise which can subsequently be re-used as a picture frame with minimal waste of the original packaging. Such re-use of the original packaging avoids the 10 problems associated with disposal of waste materials and makes efficient use of the original packaging to produce an attractive picture frame for displaying photographs, pictures, paintings, collages or the like. Other applications and uses of the display frame will be apparent to those skilled in the art and the invention is intended to include all such alternatives.

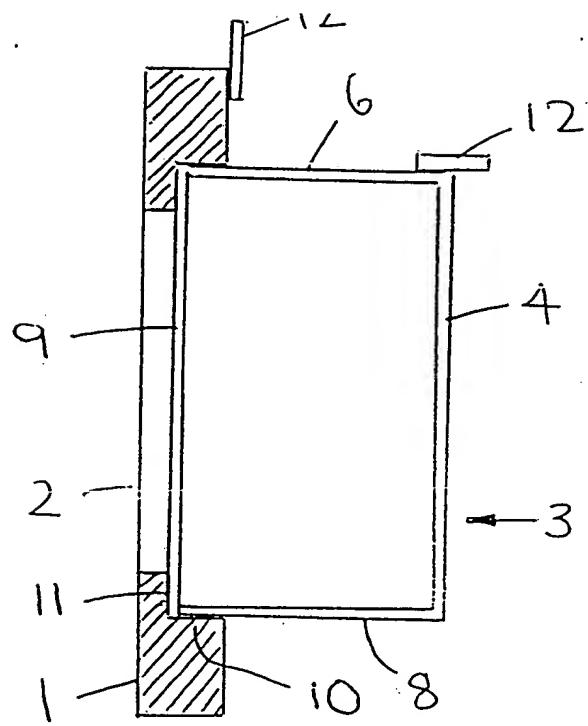


FIGURE 1.

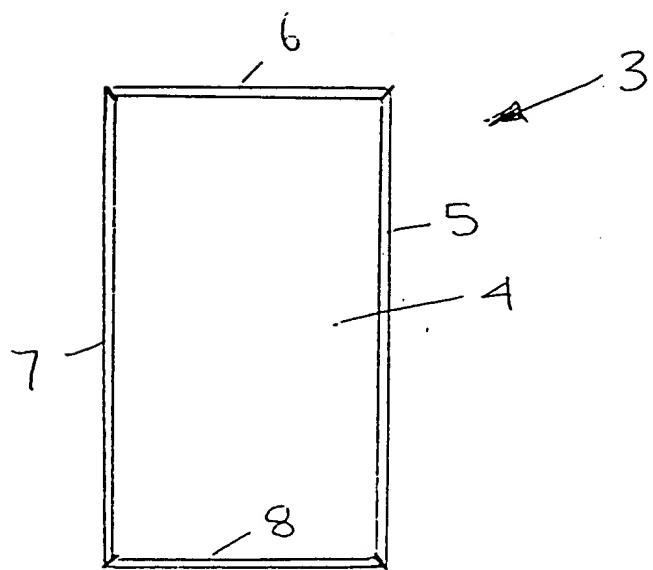
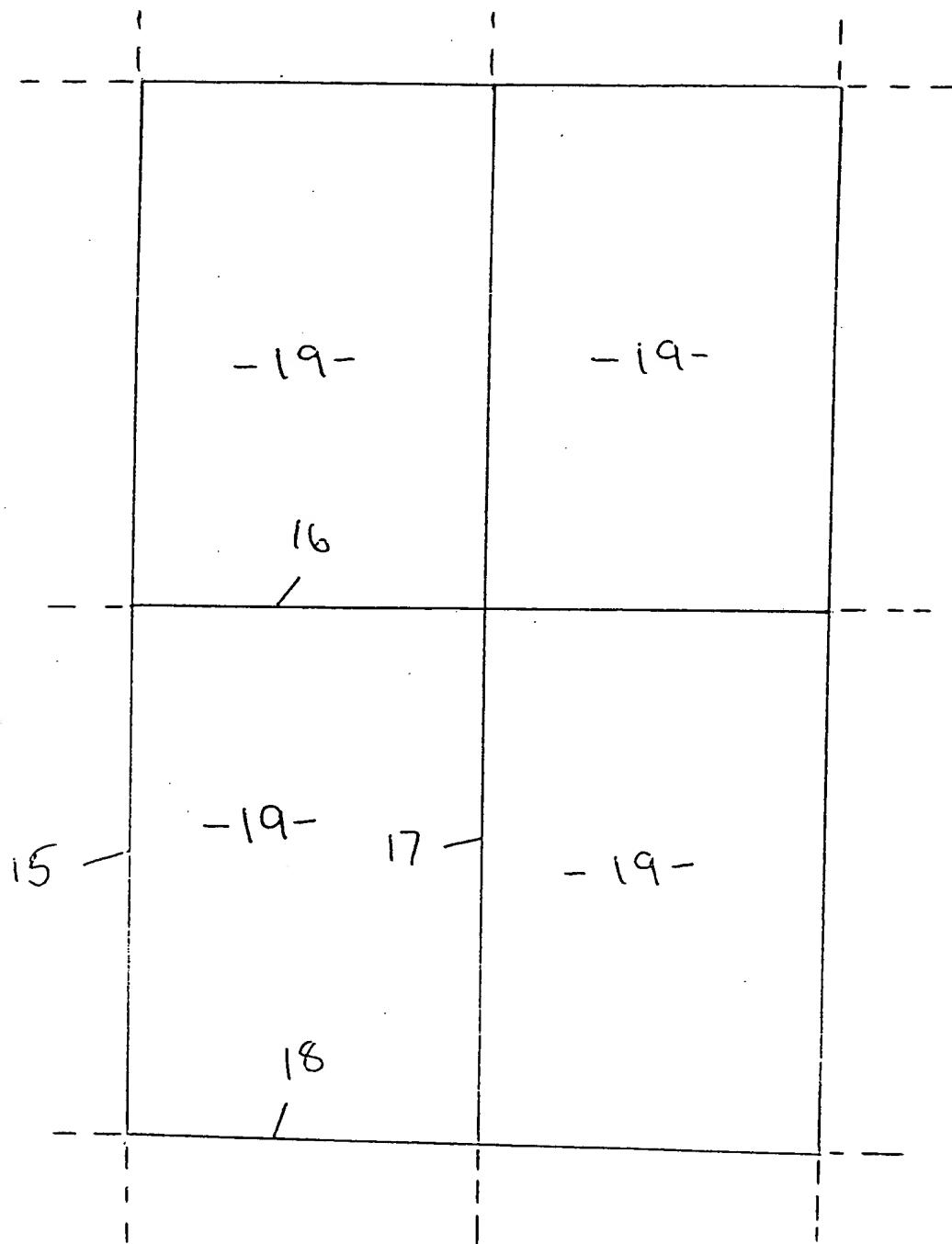


FIGURE 2.



14

FIGURE 3

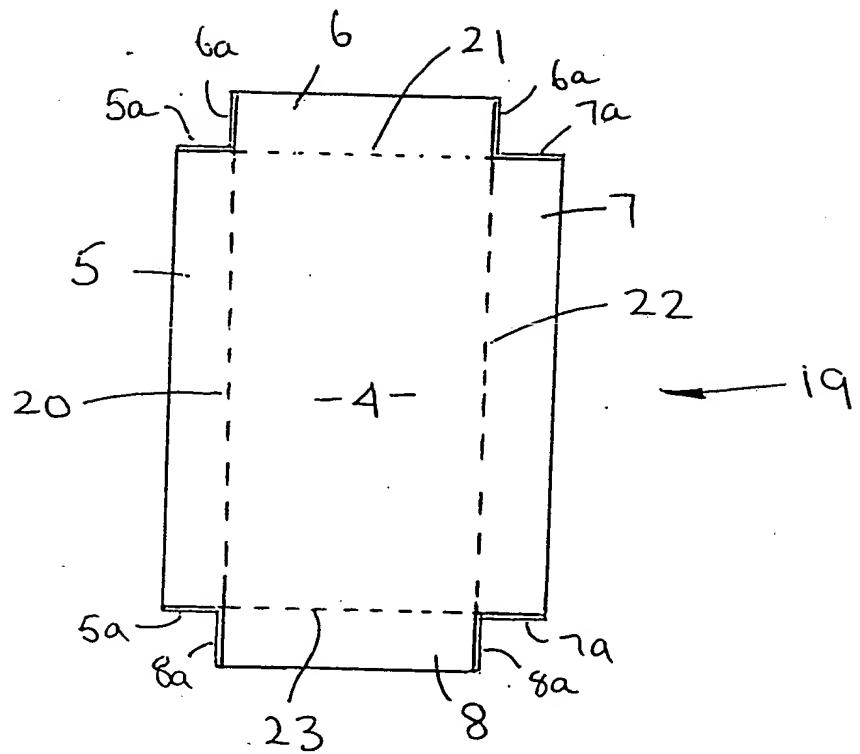


FIGURE 4

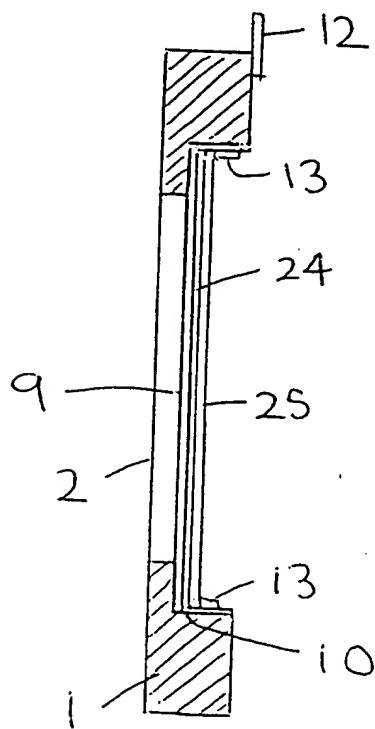


FIGURE 5